

1. (currently amended) A method of suppressing microphase separation during preparation of PANiEB films, comprising the steps of:

dissolving PANiEB in a solution of NMP;  
providing an anopore porous membrane having a plurality of parallel, cylindrical pores extending through the anopore membrane;

placing the anopore porous membrane in the solution of NMP;  
removing the anopore porous membrane from the solution of NMP, wherein a portion of the solution remains confined within the parallel, cylindrical pores extending through the anopore membrane; and

evaporating the solution that remains confined within the parallel, cylindrical pores, wherein the resulting film is formed of PANiEB and wherein the formation of PNB and LEB is suppressed by the anopore membrane.

2. (currently amended) The method of claim 1, wherein in the step of dissolving PANiEB in the solution comprises dissolving PANiEB in NMP providing the anopore membrane, the plurality of parallel, cylindrical pores meet a top and bottom surface of the anopore membrane at a perpendicular angle.

3. (currently amended) The method of claim 1, wherein the step of providing the porous anopore membrane comprises providing a free-standing porous alumina disc having cylindrical parallel pores.

4. (currently amended) The method of claim 3, wherein in the step of providing the porous anopore membrane, which has cylindrical parallel pores, comprises providing the porous membrane where the cylindrical parallel pores are approximately 20 nm in diameter.

5. (currently amended) A method of suppressing microphase separation in PANiEB comprising the steps of:

dissolving PANiEB in NMP to form a solution;

casting a film from the solution by immersing an anopore porous membrane in the solution, wherein the anopore porous membrane has parallel cylindrical pores; and

evaporating the NMP, wherein the cylindrical pores prevent microphase segregation of PANiEB into PNB and LEB.

6. (previously presented) The method of claim 5, wherein the average diameter of the cylindrical pores is 20 nm.

7. (previously presented) A PANiEB film made by the method of claim 1.

8. (previously presented) A PANiEB film made by the method of claim 5.

9. (currently amended) A method of suppressing microphase separation of PANiEB comprising the steps of:

dissolving PANiEB in a solution;

confining the dissolved PANiEB in at least one pore; and

evaporating the solution to confine the PANiEB, and wherein the at least one pore suppresses phase separation into PNB and LEB.

10. (previously presented) The method of claim 10 9, wherein the step of dissolving PANiEB in a solution comprises dissolving PANiEB in NMP.

11. (previously presented) The method of claim 10, wherein the step of confining the dissolved PANiEB in at least one pore comprises confining the dissolved PANiEB in at least one cylinder having a diameter of approximately 20 nm.

12. (previously presented) The method of claim 10, wherein the step of confining the dissolved PANiEB in at least one pore comprises confining the dissolved PANiEB in at least one pore of an anopore membrane.

13. (previously presented) A cylinder of PANiEB formed by the method of claim 11.

14. (new) The method of claim 9, wherein the at least one pore suppresses phase separation into PNB and LEB by charge pinning arising from interactions of the PANiEB with the at least one pore.